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COMMERCE COMMISSIONExhibit No. 1Direct Testimony of June 28 3 19 PM '02

Witness _____

Robert Derber

Date 5/7/02 Reporter Ced

CHIEF CLERK'S OFFICE



Question: Please state your name, title and job duties.

Answer: My name is Robert H. Derber and I'm the Energy Services Supervisor at the N. Pana Operating Center. My job duties include engineering and design of facilities to provide adequate electric and gas services to residential, commercial and industrial customers; evaluation of projects to determine expected revenue, project costs, customer contributions and rate applications; and customer contact point for coordination of construction.

Question: Please state your educational background.

Answer: I graduated from the University of Wisconsin in 1975 with a BS degree in Electrical and Computer Engineering.

Question: How long have you been employed by CIPS?

Answer: Since 1975.

Question: Are you familiar with the present complaint lodged by Mr. Shehadeh?

Answer: Yes, I am. This is not the first such complaint we have had from Jamal. I have been working with Jamal Shehadeh since the spring of 2000 when he notified us that he wanted to increase his service size due to his Christmas lighting display.

Question: Would you please briefly describe the efforts made by CIPS over the last two years to satisfy Mr. Shehadeh?

Answer: We were originally asked to provide a 600 amp, single-phase service to his house. As is our policy (as permitted by Electric Service Schedule ICC #15, Terms and Conditions, sheets 35.010 - 35-012 attached hereto), we provided Jamal with an estimate of \$3,130 for the installation of a dedicated transformer to serve his lighting display which we considered seasonal in nature and of questionable permanency. He decided not to pay the \$3,130 and his mother (since the account was then in her name; it has since been changed to Jamal) filed suit against CIPS. He also decided to upgrade his existing 100 amp service to 200 amps. CIPS upgraded his service and upgraded the transformer, serving his home to serve the additional load, all at no cost to Jamal or his mother. We have also met with Jamal on numerous occasions to help him understand our policies and to help him understand safety considerations related to the use of electricity. We have set and retrieved a data recorder on numerous occasions to verify that our service was adequately providing voltage and current to his residence.

Question: You mentioned that Mr. Shehadeh filed suit against CIPS. What was the result of that suit?

Answer: After a bench trial in Taylorville, the suit was dismissed. However, Jamal then filed an appeal to the Fifth District Appellate Court. The appeal was fully briefed by the parties, at significant expense to CIPS. At approximately the same time, a complaint on

grounds identical to the Taylorville lawsuit was filed in the Illinois Commerce Commission (Docket No. 01-0048). The appeal and Illinois Commerce Commission Complaint were ultimately dropped when CIPS and Jamal and Penny Shehadeh reached a settlement agreement on August 8th, 2001. (See attached copy.)

Question: With regard to this year's display, when did CIPS first hear from Jamal?

Answer: Jamal called Randy France in the fall indicating that his lighting display would be even bigger this year and that he wanted to be sure that our facilities would be sufficient to adequately serve his residence. He was told that we wouldn't have any problem serving his 200-amp installation.

Question: What did CIPS do next?

Answer: When CIPS was notified by Jamal that he intended to start testing his lights we set the monitoring device, to ensure that CIPS was providing adequate service. We first set the monitor on November 21st, 2001.

Question: What did the monitor show?

Answer: We removed the recorder on Tuesday, November 27th after we received a question from a neighbor concerned about flickering lights and low voltage. The recorder showed that on 6-7 occasions Jamal's service exceeded 200 amps. In addition, he exceeded 300 amps on several occasions and once was as high as 450 amps.

Question: You mentioned that you had a complaint from a customer. What was the nature of that complaint?

Answer: A neighbor indicated that her neighbor (Jamal) had a bunch of Christmas lights and that her lights dimmed whenever they were on. I called her and discussed what she was observing. She was worried that her refrigerator might be damaged due to low voltage. I informed her that we were monitoring the situation and that we would be taking actions to correct the situation. I asked that she let me know if the problem reoccurs. She didn't contact us again about low voltage.

Question: What actions did CIPS take with regard to the voltage problems being created by Mr. Shehadeh?

Answer: On Wednesday, November 28th, Randy France and I talked with Jamal on the phone. We discussed the very high currents and low voltage that we recorded. We explained that if his lights are causing this problem that they would need to be staged on to prevent low voltage on the system. Failure to limit the currents and voltage problems that he created could result in disconnection. This is in accordance with CIPS Electric Transmission and Distribution Department Procedure D-3 that has recently been revised as Regional Operating Procedure #114, attached hereto. We explored the cause of these high currents and upon further questioning Jamal indicated that these high loads could be the result of a load that he added that was used for grain drying. We reminded him of the agreement that he signed in August of 2001. We also asked that he stop by the office on

Friday to review the charts from the week prior and to review any questions that he might have.

Question: What happened at your meeting on Friday, November 30th?

Answer: When Jamal stopped by our office I showed him the charts and reviewed the currents and voltages that he placed on our system. He again tried to tell me that he couldn't split up his load into multiple stages. I restated that if his load continues to negatively impact our system that we would take legal action including the possibility of disconnecting his service. He indicated that he had measured 111 volts at his service. I indicated that voltmeters could have slight variations in reading based on the tolerance of the individual meters. I suggested that he allow us to measure his voltage at a time when both of us could be there at the same time. He never responded to my suggestion. He had several questions about our transformer fuse, which I answered. Finally, he let me know that when he was measuring voltage on our service neutral he had gotten bitten (shocked). I informed him that our recorder indicated no problem and reminded him that in our agreement he had specifically agreed to not engage in any activity, which CIPS believes is a safety hazard to the Shehadehs.

Question: Did CIPS do anything else with regard to the overloading of its facilities?

Answer: Yes CIPS directed our attorney, Steve Kaufmann to draft a letter reaffirming our concerns and intentions should Jamal continue to negatively impact our system or ignore safety concerns. That letter was mailed via Certified mail on December 5th, 2001.

Question: What other actions have occurred since that time?

Answer: There have been several other minor communications relating to this matter including discussions about the recorders, access to the meter, etc. In my opinion these don't materially impact our discussions today.

Question: Jamal has indicated in his original complaint and in his direct testimony that his lighting display isn't being properly served by CIPS. How do you respond to that statement?

Answer: Jamal is mistaken. The fact is that his lighting display is only using about 50 amps of current. The other load is being provided by multiple grain drying elements that he is using to heat his garage by his own admission.

Question: So if Jamal was only running his lighting there wouldn't be any problems?

Answer: That is correct. When we monitored his system during the month of December, we observed the lights coming on each night, we observed a slight voltage reduction. These voltage reductions were generally in the range of 2-3 volts, with voltages prior to the lights being turn on at about 126 volts and voltages after the lights being turned on at about 123 -124 volts. These voltages are well within CIPS' tolerances and indicated to us that the lighting display was not causing the voltage fluctuations we were measuring.

Question: Would you please explain these grain dryer heating elements and what they were used for?

Answer: Jamal has indicated in his deposition that he is using these elements to heat the garage. These elements are rated at 3000 watts each and he has indicated that he had put as many as 40 units on at one time. This results in 120,000 watts or about 500 amps @ 240 volts. This would explain the 450 amp current draw that we experienced in late November. In his deposition Jamal indicated that after our discussions on November, 28th and 30th he quit using 40 units and used 8-10 and sometimes 12 units at one time. For 10 units this amounts to 30,000 watts or about 125 amps @ 240 volts.

Question: Have you been able to inspect these heating elements?

Answer: As part of our deposition we asked that Jamal provide one of these heating units for our inspection. I have provided a photograph of that unit, attached hereto. This unit was obviously removed from some larger commercial grade unit. Our inspection indicates that this unit has heating fins that must have needed a large amount of air moving over them in order to cool them enough to keep from burning up. This is supported by Jamal's deposition where he states that he could only leave them on for short periods of time or they would overheat. We also noted that if these units were simply wired together in his garage, that they would almost certainly be a safety hazard to Jamal and his family without proper shielding both electrically and from a fire protection perspective.

Question: So what are your conclusions about these heating elements?

Answer: These heating elements are in my opinion and experience without question the cause of the voltage complaints that Jamal is experiencing. CIPS Electric Transmission and Distribution Department Procedure D-3 (recently revised as Regional Operating Procedure #114, attached hereto) directly applies to this situation, it requires that the customer "furnish and install suitable equipment on his own facilities to limit the voltage fluctuations to a degree acceptable to the company". We believe that these elements are not normally used on a residential service and therefore Jamal is creating his own problem by the utilization of large industrial/commercial grain processing equipment on a residential service. He could effectively use a much smaller heater designed for space heating. A properly sized heater would run for longer duration to heat his garage and eliminate the voltage problems he is experiencing.

Question: Jamal's direct testimony refers to voltage levels below 113 volts. Would you please discuss this issue?

Answer: Jamal has misinterpreted our obligation under Section 410.300 Subpart D of the Title 83, Illinois Administrative Code. Jamal has concluded in his direct testimony that our voltage cannot go below 113 volts. However, the code (Section 410.300 paragraph b, attached hereto) clearly states: "Allowable voltage variations. For service rendered at the standard service voltage, voltage variations as measured at any customer's point of delivery shall not exceed a maximum of 127 volts nor fall below a minimum of 113 volts for periods longer than two minutes in each instance. For service rendered at voltages

other than the standard voltage value, voltage variations as measured at any customer's point of delivery shall not exceed 10% above or below the service voltage for a longer period than two minutes in each instance." What Jamal has failed to properly consider is the fact that while the voltage may have gone below 113 volts for some short period of time the voltage has recovered in each and every instance to voltage levels well above the 113-volt requirement. In fact, after a review of the data provided with Jamal's direct testimony, it was found that whenever current remained below 200 amps, voltage always recovered to at least 116 volts during each sample period. Therefore, even allowing for a 3-volt drop in each leg of the service (total 6 volts) voltages would have been at least 113 volts as long as currents remained below 200 amps. Only when Jamal would exceed 200 amps, would voltages then drop below acceptable limits.

Question: Are there any other sections of the Illinois Administrative Code that apply to this situation?

Answer: Section 410.300 - paragraph c, attached hereto, also applies, it states: "Variations of voltage in excess of those specified above shall not be considered a violation of this Section if caused by: 2) by the operation of apparatus on a retail customer's premises that results in large inrush currents:" Even though we have clearly demonstrated in my previous response that we did not violate the limitation on voltage, this paragraph is important in the fact that it recognizes that voltage may go below 113 volts in certain circumstances. In this case the operation of a large industrial/commercial heating unit would certainly qualify for an exemption from the voltage requirements of this Section.

Question: In review would you please summarize your testimony?

Answer: CIPS has gone above and beyond in providing Jamal with a good safe and reliable service. He has stated that we refuse to provide him with adequate service for his Christmas lighting display. We have clearly demonstrated that his lighting display is not the cause of his problem. CIPS has followed the Illinois Administrative Code and our own policies to determine what services this customer is entitled to and has met or exceeded all requirements.

TERMS AND CONDITIONS

CUSTOMER FACILITIES CHARGES

- A. Where Customer charges are made for the installation of "non-standard" (optional) forms of service, such charges shall be calculated (or estimated) based on current Company costs at the time of such calculation.
- B. The calculation of Customer charges shall be based on facilities required to serve the Customer and shall include the following items:
 - a) All labor costs, including travel time, expense reimbursements and employee benefit expenses.
 - b) Construction materials costs, including stores and handling costs associated therewith.
 - c) Engineering, Accounting, and/or other related overhead expenses.
 - d) Less the value of salvage materials, where applicable.
 - e) Applicable Local, State and Federal taxes.
- C. Where non-standard (optional) forms of service are furnished at Customer's request, Customer may be required to enter into a written electric service agreement(s) with Company. Such agreements shall set forth the amounts to be paid by the Customer to the Company and shall include the details of refunds to Customer, if any, relative thereto.
- D. Non-standard (optional) service facilities, as referred to in this Schedule, shall include, but not be limited to, the following types of service installations:

1. "EXCESS FACILITIES" INSTALLATIONS

In the event any transmission and distribution facilities in addition to or in excess of those facilities normally furnished by the Company are requested by the Customer or are required to serve the Customer's load, the Company shall furnish, install and maintain such facilities subject to the following conditions:

- a) The type, extent and location of such facilities shall be determined by written agreement between the Company and the Customer.
- b) Customer shall furnish necessary right-of-way satisfactory to Company when required.
- c) Customer shall pay to Company (a) in advance the estimated cost of such excess facilities; or (b) for transformer or special equipment installations, a monthly charge equal to 1.5 percent of the estimated cost of such installation.
- d) The cost or monthly charge payable by the Customer shall be the excess of the cost of or monthly charge for the facilities required to serve the Customer over the cost of normal facilities.
- e) Where excess facilities which have been furnished are later used for serving other customers, the cost or monthly charge payable by the Customer shall be adjusted to that portion of the total cost or monthly charge which is reasonably assignable to the Customer, provided, however, that after a ten-year period next following the payment by the Customer of such cost, no refund will be made.

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- f) The Company will install underground primary and secondary facilities in new platted and recorded residential subdivisions of eight lots or more and make extensions in existing underground subdivisions as normal facilities with no excess facilities costs being involved. The Company will also install, own and maintain the underground service connection in residential underground subdivisions. If the service connection is in excess of one hundred feet, there will be an average unit charge per trench foot for the excess footage.
- g) Where a primary service installation is required to serve a commercial customer, or where separate transformer installations are required to serve commercial premises (including apartment buildings and mobile home parks consisting of multiple residential service) located in an urban service area, the Company at Customer's request or at Company's option, in lieu of the normal overhead service, will provide, where normal trenching conditions prevail, such service at the primary meter or at the pad mounted transformer(s) supplied by an underground primary line. Where Customer requests such underground service, Customer will be required to pay the excess cost of installing the underground facilities over normal trenching costs. Where multiple transformer installations may be required, the Company, in lieu of installing an additional pad mounted transformer on the premises, may make a secondary extension to a service pedestal located where the additional transformer would have been installed.

2. "AID TO CONSTRUCTION" INSTALLATIONS

Where the permanency of a load and/or the revenue expected to be derived therefrom is questionable, the Customer may be required to enter into a "Collateral Agreement" which will establish a payment schedule that supports the required Company investment to serve said load.

- a) The Company may:
 - i) prior to the execution of a Collateral Agreement and prior to the start of construction, require Customer to pay to Company an advance construction deposit amount equal to the estimated installation and removal costs of the required facilities, less salvage, if any. Said advance construction deposit will be subject to refund as hereinafter set forth.
 - ii) require Customer to pay a guaranteed annual revenue or minimum bill where Company's initial investment in providing the required service facilities is greater than one times the estimated actual annual revenue.
 - iii) where, following execution of the agreement but prior to the connection of the service, the Customer, for any reason, elects not to receive the service to be provided under said agreement, require Customer pay to Company as liquidated damages all costs incurred by Company associated therewith.

TERMS AND CONDITIONS

iv) where, after service has been connected, Customer defaults or elects to cancel his service agreement, require Customer to pay Company, in addition to all other payments provided for under the Rates and Agreements, the (estimated) installation and removal costs of the installed facilities, less salvage, if any. Such installation and removal charge shall be pro-rated based on the expired term of the contract period.

b) The Company will:

- i) refund Customer's advance construction deposit as a credit on Customer's service bill throughout the initial term of the agreement provided, however, the total amount so refunded shall not exceed the amount of the deposit.
- ii) adjust Customer's advance construction deposit, and make a proportionate refund relative thereto where: additional Customers are connected to the line for which Customer made the advance construction deposit, and/or Company incorporates all, or a part of, the aforementioned line into its transmission or distribution system.

3. "CUSTOMER WORK ORDER" PROJECTS

Job Orders, Customer Charge Tickets, Division Work Authorizations and similar charge tickets will be used to account for and authorize all work for which charges are to be made to Customer (or others) for the services of Company employees for work done on Company and/or Customer facilities where the work is performed for the benefit and/or convenience of the Customer (and others). Work performed for the benefit and/or convenience of Customer (and others) shall include, but not be limited to, temporary service for construction sites and carnivals, and the relocation of existing Company facilities.

"Job Orders" may also be used to account for charges for repairs to, or replacement of, Company facilities where such repair and/or replacements are made necessary as the result of actions of other than Company employees, such as, but not limited to motor vehicle accidents, acts of vandalism, etc.

- a) Charges for the above-mentioned work may be calculated based on estimated (contract) or actual costs. In either event, such charges shall be calculated as set forth herein.
- b) When advance payments are collected prior to the start of a project for which the charges are to be based on actual costs, all over-payment amounts will be refunded to payee.

SERVICE IMPAIRING LOADS

PURPOSE:

To establish guidelines for the acceptance of service impairing loads on the company's distribution system.

**** PROCEDURE:**

- A. Electric New Business Inquiries (NBIs) for large service impairing loads (welders, furnaces, DC motor drives, etc.) shall be referred to the Manager of the Electric Transmission and Distribution Department. All necessary technical information defining the electrical characteristics shall accompany each NBI. The Distribution Engineering Section will perform engineering studies to determine the effect on the company's facilities resulting from the operation of such equipment, and will define the conditions under which the equipment may be operated.
- B. Applications for the installation of small service impairing loads shall be referred to the Division Distribution Engineering Group for engineering studies. If it is determined from those studies that the operation of the equipment will cause voltage fluctuations or harmonics detrimental to service rendered to other customers, the company will require the customer owning the equipment to:
 1. Furnish and install suitable equipment on his own facilities to limit voltage fluctuations or harmonics to a degree acceptable to the company, or
 2. Pay all the excess facilities charges applicable under terms and conditions of the company's rate schedule covering the company's installation of additional or special equipment necessary to limit voltage fluctuations or harmonics to a degree acceptable to the company.
- C. If any customer's operation of an existing installation causes voltage fluctuations or harmonics detrimental to service rendered to other customers, the company may discontinue service to the customer owning the equipment until he has taken corrective action under Section B.1 or B.2 above to limit voltage fluctuations or harmonics to a degree acceptable to the company.

<i>M. J. Magill</i> MANAGER, ELECT. T&D Date: 08-94	ELECTRIC TRANSMISSION AND DISTRIBUTION DEPARTMENT PROCEDURE C.I.P.S. SPRINGFIELD, ILLINOIS	DISTRIBUTION SERVICE IMPAIRING LOADS PROCEDURE NO. D-3
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SERVICE-IMPAIRING LOADS

PURPOSE:

To establish guidelines for the acceptance of service-impairing loads on the Company's distribution system.

PROCEDURE:

- A. Customer inquiries regarding service-impairing loads (welders, furnaces, DC motor drives, etc.) shall be referred to the appropriate Electrical Engineer. All necessary technical information defining the equipment's electrical characteristics will be provided. The Electrical Engineer will perform engineering studies to determine the effect on the Company's facilities resulting from the operation of such equipment, and will use IEEE Standard 519 and other appropriate guidelines to define the conditions under which the equipment may be operated. If it is determined from these studies that the operation of the equipment will cause voltage fluctuations or generate harmonics detrimental to service rendered to other customers, the Company will require the customer owning the equipment to :
1. Furnish and install suitable equipment on his own facilities to limit voltage fluctuations or harmonics to a degree acceptable to the Company, or
 2. Pay all the excess facilities charges applicable under terms and conditions of the Company's rate schedule covering the Company's installation of additional or special equipment necessary to limit voltage fluctuations or harmonics to a degree acceptable to the Company.
- B. If any customer's operation of an existing installation causes voltage fluctuations or harmonics detrimental to service rendered to other customers, the Company may discontinue service to the customer owning the equipment until he has taken corrective action under Section A above to limit voltage fluctuations or harmonics to a degree acceptable to the Company. Management review and approval is necessary in each case.

01-2002	 Regional Operations Procedure Regional Operations Dept. Springfield, Illinois	114 SERVICE-IMPAIRING LOADS
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SUBPART D: ELECTRIC SERVICE STANDARDS

Section 410.300 Voltage Regulation

- a) Standard voltage. Each entity supplying electrical energy for general use shall adopt a standard service voltage of 120 volts (when measured phase to neutral) and shall maintain the service voltage within the allowable variations from that value at all times.
- b) Allowable voltage variations. For service rendered at the standard service voltage, voltage variations as measured at any customer's point of delivery shall not exceed a maximum of 127 volts nor fall below a minimum of 113 volts for periods longer than two minutes in each instance. For service rendered at voltages other than the standard voltage value, voltage variations as measured at any customer's point of delivery shall not exceed 10% above or below the service voltage for a longer period than two minutes in each instance.
- c) Variations of voltage in excess of those specified above shall not be considered a violation of this Section if caused:
 - 1) by operations of a retail customer in violation of an agreement with or the rules of the entity;
 - 2) by the operation of apparatus on a retail customer's premises that results in large inrush currents;
 - 3) by infrequent and unavoidable fluctuations of short duration due to system operation; or
 - 4) by acts of nature or other situations beyond the entity's control.

Section 410.310 Voltage Surveys

- a) Each entity shall make voltage surveys of its system to keep itself informed regarding the character of the service being furnished from the system. Such surveys may be made by recording instruments, analytical methods, or a combination of these methods.

